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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/787,188	02/27/2004	Yoshiki Takata	4699-0103P	4585

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EXAMINER	
CHOI, JACOB Y	
ART UNIT	PAPER NUMBER
2885	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	04/19/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 04/19/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/787,188	TAKATA, YOSHIKI	
	Examiner	Art Unit	
	Jacob Y. Choi	2885	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 March 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14,16-18 and 20-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14,16-18 and 20-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 March 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 29, 2007 has been entered.

Response to Amendment

2. Examiner acknowledges that the applicant has newly added claims 23-25. Currently, claims 1-14, 16-18 and 20-25 are pending in the application.

Specification

3. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

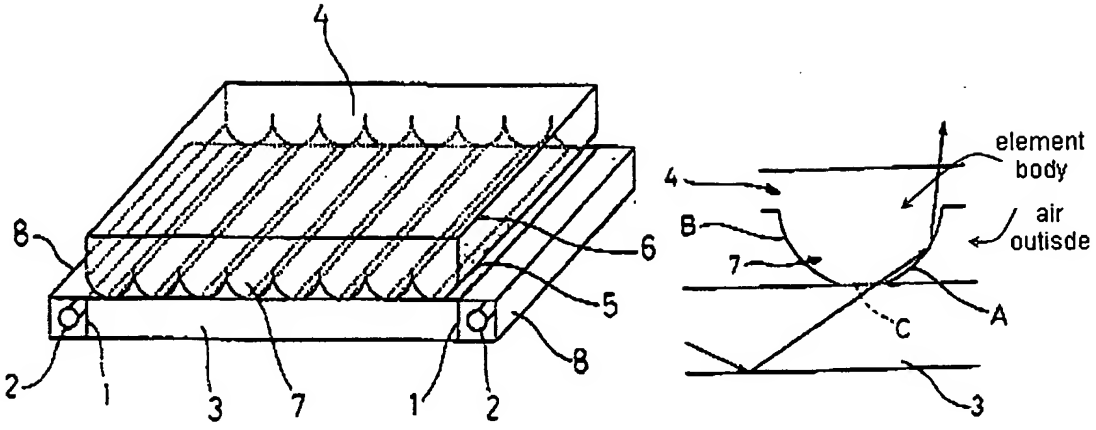
Note: claims in a pending application should be given their broadest reasonable interpretation (e.g., "*closed space*"). *In re Pearson*, 181 USPQ 641 (CCPA 1974).

The term "*closed*" is defined as having little or no space between elements or parts; tight and compact

In order to be given patentable weight, a functional recitation must be supported by recitation in the claim of sufficient structure to warrant the presence of the functional language. *In re Fuller*, 1929 C.D. 172; 388 O.G. 279.

5. Claims **1-14** are rejected under 35 U.S.C. 102(b) as being anticipated by Onishi et al. (US 2001/0053074).

Regarding claims 1 and 8, Onishi et al. discloses an element body (e.g., 4) has a generally plate shape constituted with a material having a larger electric permittivity than air outside the element body and, in the inside of the element body, a plurality of *closed spaces* (e.g., Figure 10) are disposed whose electric permittivity is smaller (e.g., air outside) than that of the material constituting the element body and whose surfaces opposite to a radiation surface are generally flat.



Regarding claims 2 & 9, Onishi et al. discloses a plurality of *closed spaces* are disposed whose surfaces opposite to the radiation surface are generally parallel to the radiation surface (e.g., Figure 9).

Regarding claims 3 & 10, Onishi et al. discloses a plurality of *closed spaces* are adjacently disposed whose surfaces opposite to the radiation surface are generally parallel to each other (e.g., Figure 9).

Regarding claims 4 & 11, Onishi et al. discloses a first member having a radiation source (e.g., 2) disposed on a side thereof and a second member disposed on the radiation surface side are constituted to be in close adhesion (e.g., column 5, lines 15-30), and the closed spaces are formed between the first member and the second member.

Regarding claims 5 & 12, Onishi et al. discloses at least one member of the first member (e.g., 3) and the second member (e.g., 7) has recesses formed therein, and the recesses (e.g., A) are disposed to constitute the closed spaces by joining the first member and the second member.

Regarding claims 6 & 13, Onishi et al. discloses a total reflection-restraining layer such as a scatter layer is disposed in the radiation surface (e.g., claims 28-30).

Regarding claims 7 & 14, Onishi et al. discloses the closed spaces are filled with solid layers having a smaller electric permittivity than the material constituting the element body.

6. Claims **1-14 and 23-25** are rejected under 35 U.S.C. 102(e) as being anticipated by Yamashita et al. (USPN 7,004,610).

Regarding claims 1 and 8, Yamashita et al. discloses an element body (e.g., 50) has a generally plate shape constituted with a material having a larger electric permittivity than air outside the element body (e.g., column 10, lines 40-50; "... *a composite layer 50 constituted of a low refractive index region (first refractive index region) 3 of a refractive index n1 and a high refractive index region of a refractive index n2 (second refractive index region) 4*") and, in the inside of the element body, a plurality of *closed spaces* (e.g., Figures 1-20) are disposed whose electric permittivity is smaller than that of the material constituting the element body and whose surfaces opposite to a radiation surface are *generally* flat (e.g., 6, 7).

Regarding claims 2 & 9, Yamashita et al. discloses a plurality of *closed spaces* are disposed whose surfaces opposite to the radiation surface are *generally* parallel to the radiation surface (e.g., Figures 2-4).

Regarding claims 3 & 10, Yamashita et al. discloses a plurality of *closed spaces* are adjacently disposed whose surfaces opposite to the radiation surface are generally parallel to each other (e.g., Figures 2-3).

Regarding claims 4 & 11, Yamashita et al. discloses a first member having a radiation source (e.g., 1) disposed on a side thereof and a second member disposed on the radiation surface side are constituted to be in close adhesion (e.g., columns 4-8, lines 25-25), and the closed spaces are formed between the first member and the second member.

Regarding claims 5 & 12, Yamashita et al. discloses at least one member of the first member (e.g., 6) and the second member (e.g., 50) has recesses formed therein, and the recesses (e.g., 3, 4,) are disposed to constitute the closed spaces by joining the first member (e.g., 6) and the second member (e.g., 50).

Regarding claims 6 & 13, Yamashita et al. discloses a total reflection-restraining layer such as a scatter layer is disposed in the radiation surface (e.g., 8, 10).

Regarding claims 7 & 14, Yamashita et al. discloses the closed spaces are filled with solid layers (e.g., 3, 4) having a smaller electric permittivity than the material constituting the element body (e.g., 50).

Regarding claims 23 & 24, Yamashita et al. discloses a first member (e.g., 6) having a radiation source (e.g., 1) disposed on a side thereof and a second member (e.g., 50) disposed on a radiation surface of the first member rare constituted to be in closed adhesion (e.g., columns 4-8, lines 25-25), the second member including a planer surface having a plurality of openings therein (e.g., 3), wherein face contact between

the second member planar surface and the first member closes the spaces in the second member (e.g., Figures 1-20).

Regarding claim 25, Yamashita et al. discloses an element body (e.g., 50) having a *generally* plate shape constituted with a material having a larger electric permittivity than air outside the element body (e.g., column 10, lines 40-50; "... *a composite layer 50 constituted of a low refractive index region (first refractive index region) 3 of a refractive index n1 and a high refractive index region of a refractive index n2 (second refractive index region) 4*") and, in the inside of the element body, a plurality of closed spaces are disposed (e.g., 3, 4), the electric permittivity of the closed spaces being smaller than the electrical permittivity of the material constituting the element body (e.g., 50), wherein the element body (e.g., 50) comprises a first member (e.g., 6) having a first side facing a radiation source (e.g., 1) and a planar second side and a second member having a planar side having a plurality of openings having *generally* flat bottoms (e.g., Figures 1-20), the second member (e.g., 50) being mounted on the first member (e.g., 6) with portions of the second member (e.g., 50) planar side in face contact with the first member (e.g., 6) planar second side thereby closing (e.g., 4) the plurality of openings (e.g., 3).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims **16-18 and 20-22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Onishi et al. (USPN 6,425,675).

Regarding claims 16-18 and 20-22, Onishi et al. discloses the structural limitations of the applicant's claimed invention, explained in above paragraphs.

Onishi et al. failed to disclose method of use of a particular structure.

It would have been obvious to one of ordinary skill in the art at the time of the invention to recite the use of structural limitations of Onishi et al. Also, It has been held that to be entitled to weight in method claims, the recited structure limitations therein must affect the method in a manipulative sense, and not to amount to the mere claiming of a use of a particular structure. *Ex parte Pfeiffer*, 1962 C.D. 408 (1961).

9. Claims **16-18 and 20-22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamashita et al. (USPN 7,004,610).

Regarding claims 16-18 and 20-22, Yamashita et al. discloses the structural limitations of the applicant's claimed invention, explained in above paragraphs.

Yamashita et al. failed to disclose method of use of a particular structure.

It would have been obvious to one of ordinary skill in the art at the time of the invention to recite the use of structural limitations of Yamashita et al. Also, It has been held that to be entitled to weight in method claims, the recited structure limitations therein must affect the method in a manipulative sense, and not to amount to the mere claiming of a use of a particular structure. *Ex parte Pfeiffer*, 1962 C.D. 408 (1961).

Response to Arguments

10. Applicant's arguments filed March 29, 2007 have been fully considered but they are not persuasive.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "*an element body having a plurality of closed spaced inside the element body*") panel decision from pre-appeal brief of February 20, 2007 confirms that examiner's interpretation of the phrase "*closed space*" was reasonable and claims 1-14, 16-18 and 20-22 are properly rejected under 35 USC § 102 and 103. To again clarify, the features are clearly shown in the drawing Figures Onishi et al., where things clearly shown in reference patent drawing qualify as prior art features, even though unexplained by the specification. *In re Mraz*, 173 USPQ 25 (CCPA 1972). Also, claims in a pending application were given their broadest reasonable interpretation (e.g., "*closed space*"). *In re Pearson*, 181 USPQ 641 (CCPA 1974). The term "*closed*" is defined as having little or no space between elements or parts; tight and compact. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacob Y. Choi whose telephone number is (571) 272-2367. The examiner can normally be reached on Monday-Friday (10:00-7:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jong-Suk (James) Lee can be reached on (571) 272-7044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jacob Y Choi
Examiner
Art Unit 2885

JC